



Safety Data Sheet
acc. to OSHA HCS

Printing date 02/08/2017

Reviewed on 06/20/2016

1 Identification

- **Product identifier**
- **Trade name:** ZymoBIOMICS DNA Wash Buffer 1
- **Article number:** D4300-3-50, D4300-3-100
- **Application of the substance / the mixture** Laboratory Reagent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Zymo Research Corp.
17062 Murphy Ave.
Irvine, CA 92614
USA
Phone: 1-949-679-1190 or 1-888-882-9682
sds@zymoresearch.com
- **Information department:** Product safety department
- **Emergency telephone number:**
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms** GHS02, GHS07

· **Signal word** Warning

- **Hazard-determining components of labeling:**

propan-2-ol

ethanol

- **Hazard statements**

Flammable liquid and vapor.

Causes serious eye irritation.

May cause drowsiness or dizziness.

- **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray

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Wear protective gloves / eye protection / face protection.
Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



HMIS-ratings (scale 0 - 4)



Other hazards

Results of PBT and vPvB assessment

- PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

Table with 2 columns: CAS number and component name, and a percentage column. Rows include CAS: 67-63-0 propan-2-ol (≤25%) and CAS: 64-17-5 ethanol (≤25%).

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4 First-aid measures

- Description of first aid measures
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: Do not induce vomiting; immediately call for medical help.
Information for doctor:
Most important symptoms and effects, both acute and delayed
Indication of any immediate medical attention and special treatment needed

5 Fire-fighting measures

- Extinguishing media
Suitable extinguishing agents: CO2, extinguishing powder or water spray.
Advice for firefighters
Protective equipment: Wear protective clothing.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
Environmental precautions: Dilute with plenty of water.
Methods and material for containment and cleaning up:
Reference to other sections
Protective Action Criteria for Chemicals

PAC-1:

Table with 3 columns: CAS number, chemical name, and concentration (ppm). Rows include propan-2-ol (400 ppm) and ethanol (1,800 ppm).

PAC-2:

Table with 3 columns: CAS number, chemical name, and concentration (ppm). Rows include propan-2-ol (2000* ppm) and ethanol (3300* ppm).

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PAC-3:

Table with 3 columns: CAS number, chemical name, and limit value. Rows include propan-2-ol (12000** ppm) and ethanol (15000* ppm).

7 Handling and storage

- Handling:
Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.
Conditions for safe storage, including any incompatibilities:
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Do not store together with acids or strong oxidizers.
Further information about storage conditions: Keep receptacle tightly sealed.
Specific end use(s): Laboratory reagent

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
Control parameters

Components with limit values that require monitoring at the workplace:

Table with 2 columns: CAS number and chemical name, and exposure limits (PEL, REL, TLV, BEI). Rows include propan-2-ol and ethanol.

Ingredients with biological limit values:

Table with 2 columns: CAS number and chemical name. Row includes propan-2-ol.

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BEI 40 mg/L
Medium: urine
Time: end of shift at end of workweek
Parameter: Acetone (background, nonspecific)

- Additional information: The lists that were valid during the creation were used as basis.
Exposure controls
Personal protective equipment:
General protective and hygienic measures:
Breathing equipment:
Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves
Penetration time of glove material
Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- Information on basic physical and chemical properties
General Information
Appearance:

Form: Liquid

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Color:	Clear
· Odor:	Alcohol-like
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	>25 °C (>77 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	425 °C (797 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	2.0 Vol %
Upper:	15.0 Vol %
· Vapor pressure at 20 °C (68 °F):	59 hPa (44 mm Hg)
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	50.0 %
VOC content:	50.0 %
	500.0 g/l / 4.17 lb/gl
· Other information	No further relevant information available.

10 Stability and reactivity

- Reactivity** No further relevant information available.
- Chemical stability** This product is normally stable under anticipated circumstances of use and storage.

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- Thermal decomposition / conditions to be avoided:
Possibility of hazardous reactions
Conditions to avoid
Incompatible materials
Hazardous decomposition products

11 Toxicological information

- Information on toxicological effects
Acute toxicity
Primary irritant effect
on the skin
on the eye
Sensitization
Additional toxicological information
Carcinogenic categories

Table with 2 columns: Agency/Program and Information. Rows include IARC, NTP, and OSHA-Ca.

12 Ecological information

- Toxicity
Aquatic toxicity
Persistence and degradability
Behavior in environmental systems
Bioaccumulative potential
Mobility in soil
Additional ecological information
General notes
Results of PBT and vPvB assessment
PBT
vPvB
Other adverse effects



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13 Disposal considerations

- Waste treatment methods
Recommendation: Dispose of contents in accordance with local/regional/national, and international recommendations.
Uncleaned packagings:
Recommendation: Dispose of container in accordance with local/regional/national and international recommendations.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

Table with 2 columns: Hazard/Requirement and Details. Rows include UN-Number (UN1993), UN proper shipping name (Flammable liquids, n.o.s. (Ethanol, Isopropanol)), Transport hazard class(es) (3 Flammable liquids), Packing group (III), and Environmental hazards (Not applicable).

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Table with 2 columns: Hazard Category/Information and Value/Details. Includes Stowage Category (A), Transport in bulk (Not applicable), DOT (Quantity limitations), IMDG (Limited/Excepted quantities), and UN Model Regulation (UN 1993 FLAMMABLE LIQUIDS, N.O.S. (ETHANOL, ISOPROPANOL), 3, III).

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture Sara

Section 355 (extremely hazardous substances): None of the ingredients is listed.

Section 313 (Specific toxic chemical listings): CAS: 67-63-0 | propan-2-ol

TSCA (Toxic Substances Control Act): All ingredients are listed.

Proposition 65

Chemicals known to cause cancer: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.

Chemicals known to cause developmental toxicity: None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency): None of the ingredients is listed.

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TLV (Threshold Limit Value established by ACGIH)

Table with 3 columns: CAS number, chemical name, and hazard code. Rows include propan-2-ol (CAS: 67-63-0, A4) and ethanol (CAS: 64-17-5, A3).

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms GHS02, GHS07

Signal word Warning

Hazard-determining components of labeling:

propan-2-ol
ethanol

Hazard statements

Flammable liquid and vapor.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves / eye protection / face protection.
Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS:

Zymo Research Corp.
Safety Department
17062 Murphy Ave.

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ZYMO RESEARCH

The Beauty of Science is to Make Things Simple

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Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

· **Contact:** sds@zymoresearch.com

· **Date of preparation / last revision** 02/08/2017 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 3: Flammable liquids – Category 3

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

US